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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/699,113

10/30/2003

Dana Ault-Riche

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25885-1755

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7590

10/13/2006

Stephanie L. Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, CA 92130-2081

EXAMINER

YANG, NELSON C

ART UNIT

PAPER NUMBER

1641

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/699,113	Applicant(s) AULT-RICHE ET AL.	
	Examiner Nelson Yang	Art Unit 1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-247 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-247 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

- I. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-34, 154, drawn to a combination comprising a plurality of sets of binding partners and instructions for use of the addressable collection of capture agents, classified in class 435, subclass 287.1.
 - II. Claims 35-62, drawn to a combination comprising a list setting forth amino acid sequences, classified in class 435, subclass 287.2.
 - III. Claims 63-90, drawn to a combination comprising a collection of sets of nucleic acid molecules, classified in class 435, subclass 287.2.
 - IV. Claims 91-101, 107-139, drawn to a method for preparing a self assembled array comprising the step of contacting a set of conjugates comprising a biological particle linked to a binding partner to an array, classified in class 427, subclass 447.
 - V. Claims 102, 106, drawn to a method comprising the step of crosslinking binding partners to molecules or biological particles, classified in class 436, subclass 528.
 - VI. Claims 103-105, drawn to a method comprising the step of linking binding partners to beads, classified in class 436, subclass 518.
 - VII. Claims 140-153, drawn to a method for monitoring an interaction of an exogenous molecule comprising the step of contacting an exogenous molecule to an array, classified in class 435, subclass 4.

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- VIII. Claims 155-178, drawn to a self assembled array comprising a set of conjugates comprising a biological particle and/or molecule linked to a binding partner, classified in class 436, subclass 523.
- IX. Claims 179-186, drawn to a combination comprising a binding partner linked to a linker or intermediate molecule, classified in class 436, subclass 532.
- X. Claims 187-200, drawn to a method of analyzing or processing a signal comprising the step of specifying pre-determined input parameters for processing received image data, classified in class 702, subclass 28.
- XI. Claims 201-206, drawn to a program product comprising instructions for specifying pre-determined input parameters for processing received image data, classified in class 702, subclass 19.
- XII. Claims 207-211, drawn to an apparatus that processes data comprising a computer processor, classified in class 702, subclass 186.
- XIII. Claims 213-216, drawn to a system which further comprises a computer programmed with instructions for controlling and directing production of an image, classified in class 356, subclass 478.
- XIV. Claims 217-218, 221-245, 247, drawn to a combination comprising the program of group XI and the combination of group I, classified in class 435, subclass 40.5.
- XV. Claim 219, drawn to a combination comprising the program of group XI and the combination of group II, classified in class 435, subclass 7.1.
- XVI. Claim 220, 246, drawn to a combination comprising the program of group XI and the combination of group III, classified in class 435, subclass 6.

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2. The inventions are distinct, each from the other because of the following reasons:

3. Inventions I, II, III, VIII, and IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions have different designs. In particular, the invention of group I requires the unique feature of a plurality of sets of binding partners and instructions for use of the addressable collection of capture agents, the invention of group II requires the unique feature of a list setting forth amino acid sequences, the invention of group III requires the unique feature of a collection of sets of nucleic acid molecules, the invention of group VIII requires the unique feature of a set of conjugates comprising a biological particle and/or molecule linked to a binding partner, and the invention of group IX requires the unique feature of a binding partner linked to a linker or intermediate molecule.

4. Inventions (I, II, III, VIII, IX, XI, XII, XIII, XIV, XV, XVI) and (IV, V, VI) are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the invention of group I requires a covalent linkage of a binding partner to a displayed molecule, which the methods of IV, V, VI do not teach, the invention of group II requires a list setting forth amino acid sequences, which the methods of IV, V, and VI do not teach, the invention of group III requires nucleic acid molecules encoding all or a portion of a polypeptide binding partner, which the methods of IV, V, and VI do not teach, the inventions of groups XI, XII, XIII, XIV, XV, XVI

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require a program containing instructions or processors, which the methods of IV, V, and VI do not teach.

5. Inventions (I, II, III, VIII, IX, XI, XII, XIII, XIV, XV, XVI) and (VII, X) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the apparatus of groups I, II, VIII, IX, XIII, XIV, XV, and XVI may be used for filtering molecules from a liquid, the inventions of group XI, XII, may be used for processing images comprising different levels of light (such as pictures).

6. Inventions I, II, III, VIII, IX, XI, XII are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, the subcombinations I, II, III, VIII, IX, have a separate utility such as filtering biomolecules from a sample, while the subcombination of group XI may be used for processing any images that comprises different intensities of light (such as pictures), and the invention of group XII may be used for data processing and for spatial analysis. See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP

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§ 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

7. Inventions (XIII, XIV, XV, XVI) and (I, II, III, XI, XII) are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination may be used with any of the subcombinations in group I-III, and furthermore, the combination has been claimed individually as the subcombination of group XI, which may be performed on the subcombination of group XII, and the subcombinations of groups I-III. The subcombinations has separate utility such as arrays for filtering molecules from a liquid, or for processing any images that comprises different intensities of light (such as pictures).

The examiner has required restriction between combination and subcombination inventions. Where applicant elects a subcombination, and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable

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in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

8. Inventions IV, V, VI, VII, X are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions have different modes of operation. In particular, the invention of group IV requires the unique step of contacting a set of conjugates comprising a biological particle linked to a binding partner to an array, the invention of group V requires the unique step of crosslinking binding partners to molecules or biological particles, the invention of group VI requires the unique step of linking binding partners to beads, the invention of group VII requires the unique step of contacting an exogenous molecule to an array, and the invention of group X requires the unique step of specifying pre-determined input parameters for processing received image data.

9. Inventions VIII, IX, XII, XIII, XIV, XV, XVI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions have different designs. In particular, the invention of group XIII requires the unique feature of a computer programmed with instructions for controlling and directing production of an image the invention of group XIV requires the unique feature of a plurality of sets of binding partners and instructions for use of the addressable collection of capture agents, the invention of group XV requires the unique feature of a list setting forth amino acid sequences, the invention of group XVI requires the unique feature of a collection of sets of nucleic acid molecules, the invention of group VIII requires the unique feature of a set of

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conjugates comprising a biological particle and/or molecule linked to a binding partner, and the invention of group IX requires the unique feature of a binding partner linked to a linker or intermediate molecule.

10. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

11. Claims 43, 44, 71, 72, 120, 122, 164, 230 are generic to the following disclosed patentably distinct species: SEQ ID Nos 1-32. The species are independent or distinct because they entail different sequences which would require separate searches. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

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Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

12. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

13. Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

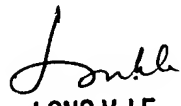
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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson Yang whose telephone number is (571) 272-0826. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long V. Le can be reached on (571)272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nelson Yang
Patent Examiner
Art Unit 1641


LONG V. LE 09/30/08
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600